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**Patent and Trademark Office**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/987,775	12/09/97	GREFENSTEIN	A 47587/48070

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IM71/0122

EXAMINER

KRUER, K

ART UNIT

PAPER NUMBER

1773

DATE MAILED: 01/22/99

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
08/987,775

Applicant(s)  
Grefenstein et al

Examiner  
Kevin Krueer

Group Art Unit  
1773



- ☐ Responsive to communication(s) filed on \_\_\_\_\_
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

- ☒ Claim(s) 1-20 is/are pending in the application.
- Of the above, claim(s) 9-14 is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 1-8 and 15-20 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☐ All ☒ Some\* ☐ None of the CERTIFIED copies of the priority documents have been
- ☒ received.
- ☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_
- ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: translations of the priority documents

- ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- ☒ Notice of References Cited, PTO-892
- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 3
- ☐ Interview Summary, PTO-413
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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### DETAILED ACTION

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-8 and 15-20, drawn to a laminated product, classified in class 428, subclass 515.
  - II. Claims 9-14, drawn to a method of making the product, classified in class 156, subclass 244.11.
2. The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed could be made by a materially different process such as coextrusion (ie formation of the laminate inside the die).
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. During a telephone conversation with Herbert Kiel on Thursday, January 14, 1999 a provisional election was made with traverse to prosecute the invention of invention I, claims 1-8 and 15-20. Affirmation of this election must be made by applicant in replying to this Office

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action. Claims 9-14 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### *Specification*

6. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. Applicant is required to submit a proposed correction in reply to this Office action. However, formal correction of the noted defect can be deferred until the application is allowed by the examiner.

7. The examiner also requests that the applicant insert the proper sectional headings into the specification.

### *Claim Objections*

8. Claim 20 is objected to because of the following informalities: the claim should read "20um" not "20 mm." Appropriate correction is required.

9. Furthermore, the examiner requests that the applicant rewords a number of his claims in order to make them more readable. For example, in claim 1, instead of stating "as component A"

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at the end of the description of component A, the examiner would prefer if the claim read "wherein component A comprises" at the beginning of the description. Ditto for component B. There are numerous other changes to the claim language which the examiner would suggest. The applicant is invited to contact the examiner to discuss possible changes. The times and dates during which the examiner is available, as well as the contact information, is given at the bottom of this action.

*Claim Rejections - 35 USC § 112*

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The limitations dealing with colorants being added to the substrate are indefinite because it is not stated as a positive limitation. Furthermore, the language "it being possible" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

12. Claim 19 recites the limitation "(3)" in the first line of the claim. There is insufficient antecedent basis for this limitation in the claim.

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13. Claim 8 recites the limitation "individual components" in the second line of the claim. There is insufficient antecedent basis for this limitation in the claim.

*Claim Rejections - 35 USC § 103*

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 1, 3-5, 7, 8, 15, 17, 18, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellison et al. (Pat. No. Re 35,894) in view of Fischer et al. (Pat. No. 5,747,568). Ellison teaches a molded article which comprises a weatherable topcoat, a molded polymer substrate (abstract), and a binding layer (col 5, line 50 - col 6, line 30). Polymethyl methacrylate may be utilized as the weatherable topcoat (col 4, lines 24-61). The binding layer may be an acrylic adhesive. The molded article in Ellison may be in the form of an automotive exterior bodywork component (see Fig 4). Such components are commonly bound to a substrate through an adhesive.

It would have been obvious to one of ordinary skill in the art to vary the thickness of the laminate taught in Ellison depending upon the desired end use of the laminate. Furthermore, it would have been obvious to one of ordinary skill in the art to process the components of the

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laminate taught in Ellison so that the ratio of the MFI values of the components was not more than 3:1 so to ensure uniform flow of the components. This is important when the laminate are coextruded because it is desirable that the components are extrudable at approximately the same rate.

Ellison does not teach that the substrate may comprise the claimed composition.

However, Fischer teaches a molding material comprising 30-80% of an elastomeric grafting base and 20-70% by weight of a shell grafted onto the grafting base (abstract). The grafting base is comprised of 90-99.9% of at least one alkyl acrylate and 0.1-10% by weight of a polyfunctional crosslinking monomer. The shell comprises 0-100% styrene or substituted styrenes, and 0-100% of an acrylonitrile or methyl methacrylate. The above described particles are dispersed in a hard matrix comprising 60-90% styrene or substituted styrene and 10-40% acrylonitrile (col 1, line 48- col 2, line 16). The composition may further contain up to 30% by weight of additives such as fibers (col 4, lines 26-34). This composition is suitable for molded automobile parts because of its good weather resistance, aging resistance, and high impact strength (col 4, lines 46-53).

Therefore, it would have been obvious to one of ordinary skill in the art to utilize the composition as taught in Fischer as the substrate of the laminate taught in Ellison because Fischer teaches that the composition can be used in such laminates.

16. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ellison in view of Fischer as applied to claims 1, 3-5, 7, 8, 15, 17, 18, and 20 above, and further in view of Ogura et al. (Pat. No. 5,773,139). Ellison in view of Fischer relied upon as above. Ellison nor Fischer

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teaches that a transparent protection film may be applied to the outside of the topcoat. However, Ogura teaches that a film may be applied to the outside of an impact resistant layer in order to prevent pieces of the impact resistant layer from scattering when that layer is impacted (col 6, lines 16-19). Thus, it would have been obvious to one of ordinary skill in the art to apply a protective film to the outside of the laminate taught in Ellison to prevent shattering of the polymethyl methacrylate layer.

17. Claims 2, 6, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellison in view of Fischer, as applied to claims 1, 3-5, 7, 8, 15, 17, 18, and 20 above, and further in view of DeWitt III (Pat. No. 4,107,235). Ellison in view of Fischer is relied upon as above. Ellison nor Fischer teaches that an additional layer comprised of impact-modified PMMA may be added between the polymethyl methacrylate topcoat and the substrate. However, DeWitt teaches that laminating an sheet of impact-modified PMMA to a sheet of PMMA increases the impact resistance of the PMMA (col 1, line 17-col 2, line 9). It is important to note that the examiner takes the position that if the PMMA decreases the impact resistance of the impact-modified PMMA, then the impact-modified PMMA increases the impact resistance of the PMMA. Therefore, it would have been obvious to one of ordinary skill in the art to apply a layer of impact-modified PMMA between the topcoat PMMA and the substrate in order to increase the impact resistance of the substrate.




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*Conclusion*

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Reafner (Pat. No. 5,215,811) teaches a polymeric sheet material which may be bonded to exterior automotive components. Backhouse (Pat. No. 4,403,003) is incorporated into Ellison by reference and teaches that PMMA polymers are commonly used as topcoat layers. Papendick et al. (Pat. No. 5,037,680) teaches an exterior automotive component with a PMMA topcoat. Coyle et al. (Pat. No. 5,271,968) teaches an acrylic coated polycarbonate article. Gutherberg et al. (Pat. No. 5,851,463) and Hochberg (Pat. No. 3,895,082) both teach the composition of the substrate.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin R. Kruer whose telephone number is (703) 305-0025. The examiner can normally be reached on Monday-Friday from 7:00 a.m. to 4:00p.m.

Kevin R. Kruer  
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